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ABSTRACT

The extent and effectiveness of access to higher education requires careful assessment. Especially for students who have been previously excluded from higher education for noneducational reasons, the experience of dismissal or withdrawal can be cruelly frustrating. Because the benefits of a college education are not gained by getting into college but by getting through, an effort will be made to examine the sorting and routing processes that affect the academic progression of minority groups in a collegiate setting. Specific questions that need to be asked concern the placement and retention of minority groups and their retention-and-graduation from American colleges and universities. Closely tied to the questions of access, placement, retention, and graduation are policy issues involving educational barriers, role of black colleges, assessment programs and testing requirements, and programs for developmental studies. (Author/KE)

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The Access-Placement-Retention-Graduation of Minority Students in Higher Education

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THE ACCESS-PLACEMENT-RETENTION-GRADUATION OF MINORITY GROUPS IN HIGHER EDUCATION

The purpose of this paper is to review the progress minority groups have made in gaining equality of access to institutions of higher education. Public policy concerning the equality of educational opportunity has been significantly altered in the past 20 years, but the implementation of public policy requires continuous review and periodic revisions. Public policy must be implemented by people working within an organizational structure for doing so. Neither organizations nor people can be expected to function perfectly in an imperfect society.

Policy vs. Practice

While the general implications of public policy concerning the equality of access have been accepted by the general public, there are numerous features of policy that have not been structured in a systematic manner. Despite the revolutionary impact of social and political change since 1954, the development of public policy for the higher education of minority groups has been gradual or incremental. Difficult policy decisions have been necessary at each progressive stage, and new vehicles or mechanisms for the implementation of policy have been required. Important policy issues have been approached on a piece-meal basis and without the benefits of a clearly appropriate forum in which those issues could be debated. A major concern of the paper, therefore, is the organizational or institutional effectiveness of policies that are ostensibly decided at the societal level. Equal educational opportunity is an accepted principle; it is not an established practice.

Problems and Issues

The intent of this paper, therefore, is to review the academic progression of minority groups in higher education. Access to institutions of higher education is no longer denied by law, but the extent and effectiveness of access requires careful assessment. "Open-door" policies of admissions do not ensure academic progression to college degrees and satisfying careers but often become "revolving doors" in which college students must be satisfied with a "summer or fall of happiness." For students who have been previously excluded for non-educational reasons, the experience of dismissal or withdrawal can be cruelly frustrating.

Because the benefits of a college education are not gained by "getting into" college but by "getting thru," an effort will be made to examine the sorting and routing processes that affect the academic progression of minority groups in a collegiate setting. Specific questions with which the paper is concerned are the placement-and-retention of minority groups and their retention-and-graduation from American colleges and universities. More precisely, what conclusions can be drawn concerning:

1. The extent to which minority groups have gained access to colleges and universities previously excluding their enrollment? To what extent are their participation and involvement in higher education an accomplished fact?
2. The academic placement of minority groups in the various institutions and programs that constitute the social institution of American higher education? How comparable is the distribution of minority groups to the distribution of groups that have traditionally

attended the various levels and types of institutions and enrolled in the diverse programs of academic study?

3. The retention of minority groups in higher education and their successful pursuit of degree requirements? To what extent are minority groups successful in meeting course standards, instructor expectations, and program criteria?
4. The rate of participation for minority groups as reflected in graduation from institutions of acceptable quality? Do minority groups graduate from college and find employment opportunities comparable to those who have previously graduated from such institutions and entered the job market?

Closely tied to questions of access, placement, retention, and graduation are several policy issues of continuing importance. These issues may be identified as:

1. The nature and extent of inherent barriers to the full participation of minority groups in institutions of higher education. What are the barriers, impediments, or stumbling blocks that reduce or limit the participation of minority students?
2. What is the role of traditionally black institutions and the changing demands that have been placed upon them? Does access to predominantly white institutions involve costs and consequences that are detrimental to predominantly black institutions?
3. What are the impact and implications of assessment programs and testing requirements for the continued progress of minority groups? Does standardized testing in the public schools unduly

restrict or retard the advance of black students? Does the emerging issue of systemwide testing in public colleges imply additional or unrealistic standards for black college students? To what extent can realistic and meaningful standards of competence be set in basic academic skills?

4. How successful are programs for developmental studies? Have the efforts of colleges to provide compensatory or remedial education for disadvantaged students resulted in better progress for such students? What are the implications of compulsory or mandatory programs of special or developmental studies?

No Easy Answers

As will be readily seen, answers to the questions of access-placement-retention-graduation are not easily gained, and solutions to the issues of inherent barriers, systemwide assessment, and developmental studies are not quickly grasped. The successful resolution of such issues implies that a continued, concerted attack on the problems of minority group participation in higher education will be needed. How successful American institutions of higher education will be in continuing such an attack remains to be seen, but several signs suggest that initial efforts have resulted in significant progress.

Guidelines and Limitations

There are a few guidelines to this review and some limitations that should be clearly stated at the beginning. One limitation is the confusion of terminology that is involved in the discussion of minority groups.

Another is the problem of which groups to include in discussions of minority group rights, and which groups to exclude.

1. A first guideline is to accept the tendency to speak of Mexican Americans, Puerto Ricans, Indian Americans, and Black Americans as those minority groups who have been most obviously excluded from full participation in American society. Together, these groups constitute approximately 15 percent of the national population and represent a proper focal point of concern for institutions of higher education (Crossland, 1971).
2. A second guideline is to recognize the dominance of concern with Black Americans in discussions of minority group rights. The geographical locations of the other three groups still encourage certain delusions that theirs may be a "local problem." A strong argument can be mustered that the geographical dispersion of Black Americans has done more than any single factor to emphasize their social, economic, and political status in national life. No apologies are made, therefore, for focusing more specifically on the educational progress of blacks in higher education. As the largest group of disadvantaged minorities, they underscore the status of the other three groups.
3. A major limitation of the paper is the limitation of the data and information from which conclusions may be drawn. Despite strenuous efforts on the part of numerous agencies, there remains a lack of accurate, systematic data concerning the access of minority groups

to higher education. Not only is there a paucity of information on critical aspects of minority group participation in higher education, but national statistics are often misleading for regional or state interpretations, and data collected on an institutional basis frequently lack the objectivity or comparability that would permit them to be used in aggregate form. Data from the Census Bureau, the National Center for Education Statistics, the American Council on Education, and various professional associations, panels, task forces, and commissions permit a general-but-rough summary of participation, but do not provide the data and information that are needed for judgments concerning progressive change. Both public opinion and public policy must be formed on the basis of data that suffers greatly from vague and overlapping categories for tabulation, casual estimates, and occasional-but-deliberate distortion.

4. A lesser limitation of the paper is its dependence upon published studies and research reports. No new data are presented and those who disagree with its various thrusts are readily supplied with a reason for rejection. Yet, the paper deals with a diversity of publications, and an attempt is made to include those that are obviously opinion-forming. Miscellaneous reports from educational organizations and associations may be the fugitive literature of higher education, but their findings, conclusions, and viewpoints, are reflected quite strongly sometimes in the formation of public policy. Legislators who have never seen a report from the Carnegie Commission on Higher Education have been influenced, nonetheless, by its recommendations.

MINORITY ACCESS TO COLLEGE

The difficulties of determining minority access to college are compounded by the dynamic growth of higher education during the sixties. Absolute numbers show increases in college attendance that would be dramatic if other changes had not taken place. Converting absolute numbers into indices of relative gain, however, creates serious problems for interpretation because "other-things-being-equal" is not a permissible assumption. Subtle changes in college attendance since 1970 add to the difficulties because of internal shifts and declining enrollments in some institutions, academic programs, and geographic regions.

Free-Access Colleges

Ferrin (1971) has documented some of the change that took place during the sixties as many states made a concerted effort to establish new institutions to facilitate the access of an expanding population. The number of collegiate institutions increased from less than 2000 to more than 2500. Free-access colleges, defined as low-tuition and minimal-selectivity institutions within commuting distance, increased from 538 to 789 while the number of institutions regarded as low-cost, moderately-selective more than doubled. Unfortunately, the gain in free-access institutions was offset to an appreciable extent by the increased selectivity of state colleges and universities. As Ferrin's study indicates, however, a national pattern of increased access must be tempered with an awareness of regional and state differences. The percent of blacks within commuting distance of a free-access college (52) was higher in

the Southern states than in the nation (47), but the states varied from 24 percent for Georgia to 72 percent for Florida.

Rates of Participation

By 1970 Crossland (1971) could estimate that 5.8 percent of all college students were Black Americans while another 1.0 percent were Mexican Americans, Puerto Ricans, or American Indians. Together they composed almost 7 percent of the more than 8 million students in American colleges. Estimates since that time have not improved greatly. Pifer (1973) reported that black students composed almost 7 percent of full-time undergraduates and approximately 4.1 percent of the full-time enrollment in graduate and professional work. In 1973 the CEEB Panel on Financing Low-Income and Minority Students in Higher Education could only report estimates that the percent of black students in the college-attending population ranged from 6 to 9 percent. The Panel saw "no way out of the maze of figures until systematic and direct counts of black students are made."

Using data from several sources, the latest SREB Factbook on Higher Education in the South reports only the enrollment figures for traditionally black institutions and other institutions broken down by public or private control. The data given for the traditionally black institutions is for Fall 1972 while the data for other institutions is for Fall 1970. Since the two sets of data are not based on the same year, no attempt is made to depict the relative rate of participation for black students as a group. But if the combined totals have any stability at all, it would follow that black students comprised less than 5 percent of all students enrolled for degree credit during that period.

Entering Freshmen

The ACE survey of Fall 1974 entering freshmen indicates that over 88 percent of the group identify themselves as white or Caucasian. Other entering freshmen identified themselves as:

Black/Negro/Afro-American	7.4%
American Indian	0.9%
Oriental	0.9%
Mexican-American/Chicano	1.5%
Puerto Rican-American	0.6%
Other	1.7%

Inconsistent Data

The inconsistency of statistical data on college attendance by minority groups throws considerable doubt on efforts to derive a meaningful rate of participation. Neither the absolute numbers used in the numerator nor the absolute numbers used in the denominator are satisfactory for the derivation of proportions or percentages that would be used for an understanding of progressive change. Such data undoubtedly reflect disparity in rates of participation for minority and majority groups, but they are dubious for depicting relative gain. When public debate centers on change, improvement, or decline, the statistics are futile.

The Proper Base

The inadequacy of the data may make it less important as to whether the rate of participation should be determined by dividing minority group enrollment by: (1) the total population of the minority group, (2) the

college-age population of that group, or (3) the number of high school graduates within that group. There is an element of unfairness when colleges are criticized for not enrolling a higher percentage of the college-age population. Since virtually all colleges require high school graduation for admission, the college-age population is likely to be a larger base and is likely to give a lower percentage of participation for the group. College-age population has the advantage of being an inclusive age group that permits variation over a four to six year range (i.e. whether considered as 18-22 years or 18-24 years). High school graduates must be defined as that specific number graduating in the same year that freshmen enter college or as the cumulative total for a designated number of years, such as the previous four years. In any event, the percent of high school graduates attending college is a statistic that should be included in efforts to determine rates of participation for minority groups.

A second reason for skepticism concerning the college-age population is its possible inflation in certain localities. Georgia and South Carolina are states that have had an inflated college-age population because of the large number of military bases within their boundaries. The inflated college-age population does not completely determine the low rates of college attendance for residents of the two states, but it does help to explain why the two are so often ranked lower than other Southern states that are comparable in other respects.

High School Graduates

Pifer (1973) cites statistics by the U.S. Department of Labor for 1972 that indicate the percent of black high school graduates entering

college (47.6) as almost equal to that of white high school graduates for the same year (49.4). Both figures are below the national figure of 57.9 percent and the Southern regional figure of 55.3 percent given in the SREB Factbook for the same year. The CEEB Panel on Financing Low-Income and Minority Students cites figures to show the significant increase in the proportion of high school graduates entering college, but indicate the gap between white students and non-white students actually widened from 1963 to 1968. By 1968, they report, the percent of non-white graduates attending college had barely reached the level reported for white graduates in 1963. The Panel does not accept these comparisons as reflecting "great progress." They insist that "the true deficit in minority college enrollments must be gauged in terms of the college-age population."

Yet, statistics from the National Center for Education Statistics indicate that in the Fall of 1973, almost three out of four 18-year-olds were high school graduates. Approximately 58 percent of the high school graduates that year apparently entered college. Even assuming a differential of 10 percentage points for black students, it would follow that approximately 65 percent graduate from high school and that almost 50 percent of those who do graduate attend college.

Such estimates are in keeping with statistics used by the National Commission on the Financing of Postsecondary Education (1973) for the previous year and statistics reported by the U.S. Bureau of the Census for 1970. The NCFPE reported that over 70 percent of black males had completed high school while 25 percent had attended college for some period of time; figures for black females ran slightly higher.

Expanding the college-age population to an age of 24 years, the Bureau of the Census reported that 12.5 percent of all blacks were enrolled in college in 1970. This rate of participation may be compared to the 25.2 percent reported for whites and the 23.6 percent reported for all groups.

Equity of Access

The discrepancies between such statistics reveal the difficulties in gaining an accurate understanding of the equity of access in the mid-seventies. Using the NCFPE data, a policy-maker may conclude that 74 percent of black citizens have received no college education. Using the Census figures for 1970, he or she may conclude that 80 percent of the black college-age population are not enrolled in college. The apparent discrepancy of 5-6 percentage points may be explained by the different bases used for computation, but the discrepancy does not facilitate the formulation of educational policy, and it does cast doubt on rates of participation as reported by various reporting agencies.

An important need remains what it has been from the beginning -- the need for reliable, accurate data and information on the flow of students from secondary schools through undergraduate programs to graduate and professional education and career placement. A national infatuation with data collection and reporting has not succeeded in obtaining factual data that can be used for the formation of public opinion and public policy. Such data, as policy-makers now have, are sufficient for the documentation of gross disparities in rates of participation, but judgments concerning progressive changes in those rates are now needed.

A Summary of Access

The most accurate review that may be given from the data discussed here is that during the 1960's, a period of rapid expansion and unprecedented growth, minority groups did succeed in gaining better access to the nation's colleges and universities. Following 1968, a concerted effort was made by many institutions of higher education to recruit and admit minority groups with minimal regard for academic criteria. A concept of "the new student" or the non-traditional student did have an effect on the admission standards of American colleges. Following a series of jarring events in the early seventies (Cambodia, Kent State-Jackson State, financial crisis, recession, Watergate) the overall picture of minority access is less clear. The inconsistency of data and information is obviously a deterrent to meaningful conclusions concerning the continued acceleration of minority access. The extent to which there may be slippage in the progress being made is not at all clear.

One conclusion is in order, however. The statistics apparently used in the formulation of public policy give no reason for undue optimism concerning minority access. Regardless of how rates of participation are computed, they do not imply parity or equal access. Whether based on total population, college-age population, or high school graduates, rates of participation imply that there is much progress yet to be made if equity of access is to be achieved.

PLACEMENT, RETENTION, AND GRADUATION

Rates of participation, based on college enrollments, are silent on questions of educational quality, impact, and effectiveness. They say nothing about the minority students who remain in college, what they learn while they are there, and what happens following completion of their stay. Colleges and universities are adversely affected by high rates of drop-out in much the same manner as the public elementary and secondary schools. The majority of students who enter college at age 18 do not graduate four years later with a college degree and an obvious career.

Questions of placement and retention for minority groups involve: (1) their distribution within the various institutions of higher education, (2) their entry into the innumerable programs of academic study, and (3) their academic progression through a series of hurdles that are inherently selective. Admission to college carries no assurance that students will readily find satisfaction in their academic studies, that their learning performance will meet the expectations of their instructors, or that living expenses and college costs can be met.

Access to Programs

For minority students entering higher education in the past decade, the problems of placement and retention have been particularly troublesome. Frustration has often been evident where satisfaction was expected; expenses have often been higher than anticipated, and instructors may have confronted students with expectations of performance that were in

ill keeping with their backgrounds and previous preparation. Perhaps most frustrating of all, minority students have found that admission to the institution did not imply entry into the academic programs of their choice. Not only were certain courses of study closed to them, but they were required to take additional coursework in the form of remedial, compensatory, or developmental studies. Their previous preparation was frequently judged inadequate for advanced coursework in traditional disciplines, and they found themselves taking more of the courses they had taken in high school. Instead of coursework in advanced subjects, they were enrolled in English, math, and reading courses that signified something less than full participation and involvement in campus life.

Patterns of Placement

The statistics for placement, retention, and graduation are even more unsatisfactory than those for access. Data must be gleaned from scattered sources and must be interpreted with particular care. If undue optimism was without foundation in the statistics of access, the guard against undue pessimism must be quite strong in dealing with the data of placement and retention.

The most obvious pattern is found in the institutional placement of minority students. Almost two out of three black students are now enrolled in institutions that are predominantly white and where they constitute a relatively small minority of the students enrolled. For black freshmen, slightly more than half attend a public two-year college, while a small proportion attend a private two-year college or a private four-year college (Crosslands, 1971). The traditionally black institu-

tions still enroll the largest relative number of those students who are enrolled in senior colleges. Black students with high grades in secondary school are more likely to enroll in a university, but the largest relative number is enrolled in a traditionally black four-year institution (ACE,1970).

In terms of access to academic programs, it is relevant that almost three out of four black students attending a public college are enrolled in a comprehensive four-year college or a two-year college; less than one-fourth attend a university or specialized institute. Over 62 percent of those attending a private college attend a liberal arts college. Such statistics imply that the majority of black students have gained admittance to general programs of study as opposed to specialized or advanced programs. Education and social sciences are still the predominant major fields of study for black students in American colleges. At the graduate level, over two out of three black students are taking courses in these two areas of concentration (NCFPE,1973). More black students are taking business majors, however, and there is an increasing interest in health service programs (Fact Book, 1971).

Retention and Graduation

The same factors and conditions that work against the access of minority groups work against their successful achievement after admittance. Students from low-income families are more likely to drop out of college than those from high-income families (CEEB Panel,1973),

a fact that has been noted in virtually all studies of college drop-outs. Students with high ability are less likely to drop out, regardless of financial status, a fact that may be attributed to the greater availability of scholarship funds for students of higher ability (Folger, Astin, & Bayer, 1970).

Retention Rates

Data used by the National Commission on the Financing of Post-secondary Education reveal a higher retention rate for oriental students than for either white or black students. Forty-one percent of oriental males have completed from 2 to 4 years of college as compared to 33 percent for white males and 16 percent for black males; comparable figures for females are 34, 26, and 19, respectively. Data used by the CEEB Panel on Financing Low-Income and Minority Students give graduation rates of 15.7 percent for whites who are 25 to 34 years of age and 6.3 percent for blacks in the same age bracket. The Panel cites other data from the Civil Rights Commission to indicate that one out of two white college entrants is expected to graduate while only one out of three or four black college entrants is so expected. Data from the 1970 Census suggest that the percentage of "college drop-outs" in the college-age population (i.e. persons who are not enrolled in college but who have attended) is 13.9 for all citizens; 14.8 for whites; and 7.4 for blacks.

Continuing Problems

The ambiguity of data and information on the retention and graduation of minority groups in higher education is indicative of the

problems remaining to be solved. There is very little in the data to suggest that institutions of higher education are effectively geared for the education of minority groups and are efficiently processing minority group graduates for the nation's manpower needs. Data for the Public Negro Colleges give a more encouraging picture of the progress that has been made in expanding educational opportunity in the form of new programs and major fields, the number of degrees conferred, and the career placement of graduates (Fact Book, 1971). Such information indicates the necessity of agencies specifically charged with responsibility for the collection and dissemination of information that is relevant to the task of improving educational opportunity.

Need for Special Programs

The staff of the Institute for Higher Educational Opportunity (1970, 1971) has been able to identify many of the problems with which minority students are confronted in attending previously segregated institutions and to suggest programs, projects, and activities worthy of emulation. In particular, the work of the Institute indicated that problems are involved in encouraging black students to attend public, two-year colleges. Low costs and proximity alone do not adequately meet the students' needs for education beyond the high school. Success in meeting those needs is dependent upon special programs that can address the learning problems and career choices of disadvantaged students and facilitate access to a senior college or university upon completion of a two-year program. Terminal programs within

the two-year college must be carefully coordinated with vocational-technical programs housed in other institutions and specifically related to employment opportunities that are available.

Conventional Methods

Many problems associated with placement and retention of minority groups have not been solved by conventional methods of coping with marginal or low-achieving students. Arrangments such as reduced coursework, noncredit remedial courses, and summer pre-admission programs have not only increased the expenses of a college education for students who cannot afford it, but they have intensified feelings of rejection or inadequacy that many disadvantaged students already had. The success of some courses has been off-set by the ineffectiveness of others or by an untimely alienation of the students they would assist.

REMAINING BARRIERS TO PARTICIPATION

As a national policy, the equality of educational opportunity has been noticeably impeded by lingering barriers to the access, placement, retention, and graduation of minority groups. Some barriers are exterior to the organization of higher education itself and reflect conditions or determinants that may be beyond the control of policy-makers and educational leadership. Others are inherent to the organization of higher education and require systematic efforts to remove or lessen. The challenge to academic leadership is to identify situational or conditional barriers that : (1) are

within their control, (2) are arbitrary or extra-educational, and (3) have persisted or lingered well beyond their original reason-for-being. Barriers that are beyond the control of college and university administrators should be clearly identified as such and the responsibility for their removal or reduction shared with leadership in other sectors of public life.

Papers given at a College Board Colloquium in 1970 suggest that the organization of higher education is a crucial factor in any effort to equalize access and retention. The traditional purposes and functions of higher education imply a considerable reluctance to take up a new mission. Universities are particularly inclined to see their mission in terms of traditions, customs, and conventions that are inherent to academia. Public or community service, career preparation, and personal fulfillment have become functions of the American university only after intense and sometimes bitter resistance. Contract research, manpower development, and other forms of cooperative service to government and corporate industry have also been resisted but have been adopted because of the special incentives given faculty members.

Major Barriers

The major barriers discussed at the CEEB Colloquium are those that affect the immediate and direct access of minority groups:

1. Admission standards -- and the abuses of standardized aptitude and achievement tests.

2. Family income -- and the inability of many students to pay the tuition costs of higher education.
3. Poor preparation -- and the difficulties of providing compensatory or remedial education for disadvantaged students.
4. Lack of special and innovative programs -- the apparently inflexible stance of many institutions of higher education.

Other barriers were identified during the course of the colloquium but these four may be said to have caused the greatest concern for those participating. No attempt was made during the colloquium to assign priorities to the various barriers, but the lack of adequate financial aid has obviously influenced educational thought and discussion in recent years.

In an impressive review of policy-related research on postsecondary education for disadvantaged students, Mulka and Sheerin (1975) have recently challenged the possibility that student financial aid is the greatest barrier to a college education. They conclude that a lack of academic competencies is the most severe barrier to the full participation of disadvantaged students and suggest quite strongly that:

1. Colleges and universities lack both the resources and trained personnel to deal with high academic risk students.
2. Higher education is not responsive to the needs of students who lack basic skills because of its traditions of scholarship and excellence -- and its structure and organization.

The recommendations made by Mulka and Sheerin would direct the

attention of national leadership to the inadequacy of elementary and secondary education and require that "interrelated steps be taken by federal, state, and local institutions at every level of the educational ladder". Efforts to provide additional financial aid to disadvantaged students are seen as a limited or piecemeal "crisis response" to an "enduring national problem."

Student Financial Aid

The necessity of sustained, systematic student financial aid lies at the heart of public policies concerning the access, placement, and graduation of minority groups. There is: (1) voluminous documentation of the financial needs of minority students, (2) a convergence of rationales for federal support, and (3) a definite possibility that coherent, systematic plans can be developed by the end of the decade. Virtually all commissions, task forces, panels, and national committees dealing with the problems and issues of higher education in the past decade have underlined the need for additional financial aid to students from low-income families. The Carnegie Commission on Higher Education (1974) has made a total of 15 recommendations dealing directly with the subject of financial aid to students. These recommendations range from assurance of some financial aid to "all college students of demonstrated need" to specific recommendations such as raising the ceiling on basic opportunity grants.

The problem of student financial aid is very much as Davis (1974) has put it:

> "Student financial need is a relative concept and quantity. In its simplest form it is the difference between the cost of education to a student and the amount of resources he (and his family) can reasonably afford to expend to meet the cost. Hidden within this definition, however, are a variety of complex concepts and unresolved issues."

Rationales for Support

As a barrier to higher education, the lack of student financial aid may be seen as part of a larger concern with the distributive effects of college attendance. This concern reflects a convergence of economic and sociological research in which there is a more active attempt to deal with educational results, employment opportunities, and expected income. Rationales for increased financial support and increased rates of participation are evaluated in terms of dependent variables such as: (1) degrees earned, (2) career placement, (3) lifetime earnings, and (4) other observed changes in socioeconomic status (Solmon & Taubman, 1973; Juster, 1975).

The major implication of such research has been the development of rationales for federal support that target low-income students as the proper recipients of federal aid. These rationales are reflected in the Educational Amendments Act of 1972 and suggest that policies for universal access to higher education are matters of public record, if not public practice.

Poor Preparation

No attempt need be made to consider the literature of disenchantment with public schooling, but its relevance for higher education should be noted. The Coleman report (1966) and its numerous critiques, the views of Ivan Illich (1971), and the writings of Christopher Jencks (1973) have been much publicized and their pessimistic implications generalized to colleges and universities. As easily as critics may quarrel with the methodology of such studies, their implications remain much the same. There is a pervasive disenchantment with public schools and a widely spread belief that they have consistently failed to educate the diverse minorities of a pluralistic society.

A useful summary and interpretation of most of this work has been provided by the staff of the Rand Corporation (Averch, et al., 1972). They conclude:

1. No school characteristic, factor, or condition consistently and unambiguously makes a difference in how well students learn.
2. Increasing expenditures on traditional educational practices is not likely to improve education substantially.
3. There may be opportunities to reduce or redirect educational expenditures without deterioration in educational outcomes.

The basis for such sweeping conclusions is the considerable amount of evidence amassed to the effect that non-school factors may be more important determinants of educational achievement than school factors. Needless to say, such evidence does not square with what most American

citizens have believed in the past about the role of education in a democratic society.

Policy Variables

Mulka and Sheerin contend that the secondary school curriculum, basic competencies, and study habits of minority students are policy variables that command attention from policy-makers. All may be accomplished facts by the time disadvantaged students enter college, but policies are needed that will enable schools to cope with such problems at a time when they can be alleviated. Basic academic deficiencies, poor study habits, poor academic self-image, poor motivation, and geographic access to a postsecondary institution are the policy variables that limit access, achievement, and persistence in higher education. Mulka and Sheerin view socioeconomic status, as reflected in parental income and occupation, as variables that cannot be manipulated directly by policy-makers. Socioeconomic status, minority group status, and sex are thus regarded as non-policy variables that require the identification of intermediary mechanisms that ostensibly can be manipulated or controlled to some extent by policy-makers.

The National Commission on Financing Postsecondary Education has also found certain aspects of the secondary school curriculum wanting and have identified "rigid high school tracking" as the single most significant controllable factor affecting the individual's decision to seek postsecondary education. Crossland (1971) wastes little

time on the barrier of poor preparation, but simply identifies "the quality, nature, and extent of prior schooling" as major factors in determining who is likely to go to college and to succeed once they have entered.

THE ROLE OF TRADITIONALLY BLACK INSTITUTIONS

As minority groups have gained access to institutions that were previously segregated, there has been considerable speculation concerning the future role of institutions historically founded for blacks. Opinions have been expressed that such institutions had outlived their usefulness and thus could be closed with economy to both taxpayers and alumni. A more judicious perspective suggested that such institutions would be challenged even more severely to serve the needs and interests of their students.

McGrath Study

McGrath's study of The Predominantly Negro Colleges and Universities in Transition (1965) gave substance to the latter perspective and has influenced much of the thinking that has been given to later issues and problems. The handicaps and limitations of the predominantly black institutions were presented with what many educators believe to be remarkable objectivity. McGrath took full recognition of the varying quality among the 123 institutions and depicted their dominant characteristics in a generally constructive manner. His first recommendation was to maintain and strengthen most of the then-

existing institutions. No predominantly black institution should be permitted to die unless its present and prospective students could be fully assured of better opportunities elsewhere.

Other studies and reports have strongly echoed McGrath's recommendations for: (1) better coordination and cooperation among the institutions themselves, (2) long-range planning through state or regional commissions, and (3) continued faculty development to enable faculty to meet the changing demands made on their talents. If the traditionally black institutions were to meet their obligations and responsibilities to black citizens, high priority should be assigned to: (1) curricula reform, (2) remedial education, (3) student financial aid, and (4) improved methods of instruction. McGrath's proposals knowingly involved "the expenditure of huge additional funds" and required the federal government to assume "a major and inescapable role." McGrath was one of the first national authorities to fully recognize the national role that the predominantly black institutions were playing.

Commission Reports

The Commission on Higher Educational Opportunity in the South (1967) and the Carnegie Commission on Higher Education (1971) underscored in substantive fashion the major findings and recommendations of the McGrath study. The former called upon the Southern states to recognize their commitment to equal educational opportunity and to come to grips with the post-high school educational needs of black

students. The Carnegie Commission took explicit recognition: (1) of the mission that colleges founded for Negroes shared with other institutions and (2) their unique mission as "centers for the intellectual leadership and knowledge that will strengthen the Negro community as it adjusts to new levels of competition and equality". Both commissions recommended the creation of organizational structures that could deal more directly with the problems and issues of minority group education. As one form of regional commitment, the Commission on Higher Educational Opportunity recommended the establishment of an Institute for Higher Educational Opportunity that could "stimulate, coordinate, and assist in the development of action programs to meet the specific needs of Negro institutions". The Carnegie Commission recommended the creation of a specific federal agency to assist in "planning and funding developments to overcome deficits in physical resources, programs, and activities" and encouraged the support of centers for research on education for the academically disadvantaged. The Institute for Higher Educational Opportunity was successfully launched in the months following the recommendation for its creation; the agencies recommended by the Carnegie Commission have not been created.

Title III

The McGrath study concluded that the Negro colleges of the nation must be the "earliest and relatively largest beneficiaries" of federal action and support in a national effort to provide equality of educational opportunity. To what extent this conclusion was instrumental

in the Higher Education Act of 1965 is not known, but there are numerous reasons to believe that its influence was significant.

Title III of the 1965 Act has been called the major effort of the federal government to deal with the "special financial needs" of the traditionally black institutions. Although the "developing institutions" covered by the title were defined in general terms, it was expected at the time of enactment that most of the funds would be received by black institutions. It is also significant that in the debates and hearings preceeding the Educational Amendments Act of 1972 that minimal debate attended the re-authorization of financial support for developing institutions.

Hodgkinson (1974) has evaluated the impact of over a quarter of a billion dollars in federal aid to over 600 institutions classified as developing institutions. He believes Title III to be, in many ways, one of the most radical federal programs in higher education and judges its impact as one that has given many institutions "an increased sense of purpose and self-direction." The curricula of such institutions may still be too narrow, however, and they have apparently failed to take full advantage of Title III funds for purposes of remedial education. Hodgkinson infers better progress in the improvement of administrative decision-making facilities and resources and in institutional leadership. He concludes that many institutions are now in a position to benefit from the Advanced Institutional Development program that would presumably permit them to enter a "take-off stage".

A published report from the Southern Education Foundation (1972) suggests, however, that despite the massive federal support given higher education in the past two decades, the sum total of support for black colleges amounts to "small change". The evidence presented in the report documents the allocation of relatively small amounts of federal funds to institutions that have survived under conditions of "great inequity and isolation". While the magnitude of federal funding from 1965 to 1972 increased dramatically, the cumulative deficit of black colleges required catch-up funds that were not forthcoming. Other institutions had benefited greatly from funds channeled through the National Science Foundation, the National Aeronautics and Space Agency, the Atomic Energy Commission, and the Department of Defense, but the percent of all federal funds given black colleges was not commensurate with their historic role, their current needs, or the demands made on their facilities and resources.

Opportunity Colleges

Ten years after the enactment of the Higher Education Act of 1965, the traditionally black institutions find their role extended rather than diminished. Their historic role remains what it has been -- the provision of opportunities and experiences that cannot be duplicated elsewhere. They remain unique institutions in a nation that has not yet fully understood the meaning of pluralism and diversity. Their future, nonetheless, remains a primary issue in the access, placement, retention, and graduation of minority students.

Many of the recommendations made by McGrath are still relevant. The Carnegie Commission's report on colleges founded for Negroes can still be read for suggestions and its recommendations should still generate a critical discussion of purposes and functions. The curricula of many traditionally black institutions are more diversified, and the public colleges are expected to become comprehensive institutions that will serve larger numbers of students, both black and white (Fact Book, 1971). A majority of their students expect to continue their education beyond the bachelor's degree and the colleges remain the major source of black college graduates who become Ph.D's (75%), army officers (75%), federal judges (80%), and physicians (85%) (Jordan, 1975).

TESTING AND ASSESSMENT PROGRAMS

The possibility that standardized tests and measurements are inherently biased against minority groups has produced an intense controversy that shows few signs of lessening. Calls for a testing moratorium are countered by an insistence on accountability that implies an increased use of standardized tests for purposes of determining student progress. As much as minority groups may resist the use of standardized tests, their applicability to a wide range of educational problems makes their demise most unlikely. In all probability, the future will see more extensive use of tests rather than less.

Prospects for extended use, however, do not imply that standardized tests will be used more wisely in the future. There are severe

limitations to the uses and applications of tests, and abuse has been prevalent in the past. There is, however, an increasing awareness of the limitations of standardized tests, and there should be a concerted effort to remove all traces of racial or ethnic bias that remain in such tests. Professional and technical personnel who construct and develop standardized tests are increasingly sensitive to the sources of biases in their instruments (Green, 1972), and modifications in both testing philosophy and practices are much in evidence (Samuda, 1975). The tragedy for minority groups is the inexcusable time it has taken to recognize the inherent bias in standardized tests and the lethargy with which the removal of that bias has proceeded.

Selection Versus Placement

One encouraging feature of the testing controversy is the possibility of shifting the user's attention from models of selective access to models of placement and guidance. Given the diversity of institutional choices now open to college applicants, the wide range of academic programs, the numerous elective options, and the alternate treatment within major programs and elective courses, a concern with placement and exemption is long overdue (Willingham, 1974). The use of standardized tests for (1) academic placement and feedback, (2) educational advisement and counseling, and (3) career planning and preparation, still involves a host of sorting, routing, and channeling decisions for minority groups in higher education, but the likelihood of abuse is much less than that implicit in selective admissions.

Statewide Assessment

The testing implications of accountability are seen in the efforts of various states to develop broad-gauge procedures for the assessment of educational programs in the public schools. The manner in which statewide testing is conducted, however, has produced a great deal of confusion concerning the purposes for which the tests are being used. For example, some states have established assessment programs that ostensibly seek information for use in the evaluation of educational programs. Other states have state testing programs that evidently seek information on the achievements of individual students. Some states have both assessment programs and testing programs; some states have programs that may be either testing or assessment (Ebel, 1974).

The failure to clarify the purposes of statewide testing or assessment is a major limitation of such efforts. Two surveys, conducted by the Educational Testing Service (1973) suggest some convergence of thinking in state programs, but depict a situation that does not inspire confidence. Each survey is a revision of surveys conducted earlier and displays the diversity of approaches that states have taken to the problems and issues of accountability. Perhaps the most severe weakness of such approaches is that they consistently involve goals and objectives that may be contradictory. Virtually all programs serve both to monitor the progress of individual students, and to identify strengths and weaknesses in the state's educational program. The incompatibility of these two purposes is a possibility that both educators and testing experts have been reluctant to recognize.

If a clear declaration for assessment could be made, the support of minority groups would be more easily obtained. The apparent focus of statewide assessment is the effectiveness of educational programs and their revision or modification as results and intelligent judgment suggest. In other words, the tests would be given to evaluate the education that the students in public schools were receiving -- and not to evaluate the students themselves. Unfortunately, there is no such agreement within state departments of education, and the uses and applications of standardized tests in state programs complicate a number of policy issues that are crucial to the equality of educational opportunity.

A Confusion of Goals

The impetus for statewide testing has come from both federal and state legislation. Title III funds under the Elementary and Secondary Education Act or other federal monies are involved in most programs, but some are financed solely with state funds (ETS, 1973). Some form of statewide assessment is apparently mandated by state legislation in 16 states, but assessment results are reported to state legislatures in a larger number of states. The separate state programs differ in the extent to which assessment data are gathered: (1) for use in a statewide management information system or planning-programming-budgeting system, (2) for use in the allocation of state or federal funds, (3) on a voluntary or mandatory basis, (4) on a sample of students or the total population of enrolled students, (5) with norm-reference or criterion-referenced tests, and (6) for the

assessment of cognitive skills alone or for both cognitive and affective characteristics.

Respondents to the ETS Survey in 1973 indicated that the major purpose of their program was to: (1) improve instruction, (2) identify individual problems and talents, (3) provide information for student guidance, (4) provide data for a management information system, or (5) placement and grouping. Policy for such programs, however, is determined almost exclusively within the state educational agency responsible for the programs. State agencies apparently (1) determine the skills and achievements to be tested, (2) select the tests to be administered, and (3) provide the major source of assistance in interpreting test results.

The results of the two ETS surveys underscore the diversity of approaches and the lack of consistent objectives. These difficulties in turn give rise to other questions, problems, and reservations concerning the effectiveness of statewide testing.

Goal Displacement

Dyer and Rosenthal (1971) have challenged the complexities of the goal-making process in education. Too many lists of goals, they contend, are indiscriminate collections of preferences and ideals that resist any basis for comparison and the assignment of priorities. Too frequently the goal-setting process becomes "an exercise in rhetoric" that postpones the hard decisions that should be made. But not only is there confusion in the goals, there is active conflict:

> . . . the confusion of goals seems to lie in the conflicting interests among and within the many different groups having direct economic and/or political stake in the educational enterprise -- parents, taxpayers, teachers, school executives, school board members, legislators, bureacrats, commercial suppliers of plant and equipment, and, not least, the students themselves. The questions that inevitably trouble the members of these groups are: "What is there in it for me?"

Given the confusion and conflict in educational goals that undoubtedly exist at the elementary and secondary levels, statewide assessment may indeed be a process of forming goals "by stealth" (Green, 1973). The establishment of testing programs does influence, to some extent, what is taught and what is learned in public schools. It may well be, however, that the requirement of statewide tests has little effect on either teacher or student performance and behavior in the classroom. The latter prospect may be more detrimental to education than the former.

Areas of Sensitivity

Intrinsic to the policy issues surrounding statewide assessment are a number of sensitive concerns. Test scores have a way of invading privacy at a time when the American public has become extremely sensitive to the issue. Parents are fearful: (1) that such data may not be treated with full confidentiality by school officials, (2) that their children may be misclassified and then miseducated, (3) that the schools attended by their children may acquire unsavory

reputations from test scores, and (4) that the tests are, in their final results, another way of perpetuating patterns of discrimination.

Teachers may be sensitive to statewide testing because of the literal implications of accountability. If test results are to provide a basis for, or be a factor in, working conditions and arrangements, teachers may become not only sensitive, but militant. Few teachers believe themselves accountable for the performance of students when that performance is judged from standardized test results.

School officials and board members may be sensitive in much the same manner. Test data may arm adversaries as well as allies. Many school officials are aware that tests lack those properties and characteristics that would permit valid judgments concerning the school or the school system. They rightly insist that studies of cost/effectiveness or cost/benefits be conducted with full appreciation of the influence of home and family background, community resources, and public support.

Critical Issues in Testing

The problems of statewide assessment are indicative of the crucial issues that remain in psychological and educational testing. As Ralph Tyler (1974) has recently pointed out:

> . . . particular tests were developed for particular purposes, using particular assumptions and techniques of the times. As times have changed, tests are being used for new purposes in schools that are operating under different assumptions. As

> the discrepancies between the old and the new have become apparent, issues have arisen questioning and challenging the use of tests and their value for the new purposes to which they have been put.

Tyler adds that the issues are particularly relevant to the extension of minority group rights and the growing efforts to make education effective for all children and youth. This has called forth, in turn, a need to: (1) appraise our educational institutions, (2) evaluate new programs and instructional methods, and (3) protect the private lives of individuals in an increasingly crowded society. Some of the issues deemed crucial in the impact of testing on minority groups may be identified as follows:

1. Program evaluation versus individual assessment -- is the basis of the conflict in objectives for statewide assessment programs and is more or less the question of what is to be measured? Is the intent to evaluate educational programs or is it to measure the achievements of individual students? If the latter, traditional methods of testing may be suitable -- but if the former, new instruments and procedures will be needed. Tyler has indicated that standardized tests were developed in an era when a psychology of individual differences was dominant and do not meet the needs of a psychology of learning. What is needed, in his estimation, are instruments that would permit the evaluation of instructional methods and materials, programs of instruction,

and learning outcomes. Tests that result primarily in a rank-ordering of students do not meet this need. More important, it would appear that efforts to evaluate programs and monitor student progress at the same time result in a failure to do neither one well.

2. Absolute versus relative standards -- this issue may be seen in the advocacy of criterion-referenced tests as opposed to norm-referenced tests. Traditional test theory and practices have involved the latter because of previous dissatisfaction with teacher-made tests and other forms of subjective judgment that were predominant. Comparison of the individual with a designated group was a constructive step forward and a great improvement over teacher-made tests. Achievement was seen as relative to the group to which the individual was compared. Absolute standards are once again advocated because there is a strong belief in many quarters that teachers should know what they are supposed to teach and students should know what they are expected to learn. Normative standards are suspect when they do not tell how much or how well the student has learned what the teacher ostensibly has taught. Some advocates believe that educational achievement tests should be criterion-referenced in the sense of specifying how much the student has learned -- not where he stands in a group. Other advocates of statewide assessment believe that both kinds of tests should be used.

3. Aptitude versus achievement -- is a general way of identitying several issues involved in testing. Traditional testing practices have most often sought predictions of future events (i.e. grades in college, success on the job, etc.) and have been little concerned with the causes of such events. Reading readiness tests, I.Q. tests, and aptitude tests are indicative of the effort to tap potential abilities. Educational achievement and job performance tests, however, are needed to indicate skills, competencies, and abilities that the individual has already acquired. Advocates of competency-based education believe that testing must be concerned with performance-based measures and not with potential characteristics.
4. The question of cultural fairness -- is perhaps <u>the</u> crucial issue as far as minority groups are concerned, but an easy resolution is not likely. The issue will not be resolved until a satisfactory definition of cultural bias is forthcoming (Weber, 1974). The extent to which a test is culturally biased must be determined by careful analyses of item content and test standardization, as well as the uses and applications of the finished product (Green, 1972; Flaugher, 1974), but it is unlikely that such efforts will satisfy those who are inexorably opposed to objective tests. There is no doubt that tests are culture-bound to some extent. The same may be said of public schools and society

in general. Many users of tests believe the question of cultural fairness to be a societal issue that has not been resolved. Tests must necessarily reflect societal values, norms and preferences (See Cleary, Humphreys, Kendrick, and Wesman, 1975).

Systemwide Testing

The problems and issues involved in statewide assessment are again encountered in the efforts of colleges and universities to use standardized tests for the evaluation of student performance. College testing programs have long been a feature of the shifting and sorting process that takes place after enrollment, but such programs have been institutional programs and not systemwide programs involving all colleges within a system of higher education. The push for statewide planning and coordination in higher education over the past decade has lent new emphasis to the possibilities of systemwide testing. The demands for accountability have been heard in the corridors of higher education as clearly as they have been heard in the hallways of the public schools.

The forerunners of systemwide testing may be seen in the adoption of College Entrance Examination Board (CEEB) or American College Testing Program (ACT) tests for applicants seeking admission to public institutions of higher education. During the sixties, state governing or coordinating boards for higher education adopted the services of national testing agencies in an effort to provide efficient access to institutions within their jurisdiction. The

State of Georgia, for example, adopted the CEEB-Scholastic Aptitude Test as early as 1957 for all applicants to institutions within the University System of Georgia. The SAT has been shown to be effective in predicting grades within the various units of the University System and has found extensive use in pre-college counseling and advisement (Fincher, 1974).

An Emerging Prototype?

The possibilities of systemwide testing can be seen in recent actions taken by the Board of Regents of the University System of Georgia. One action provides for a systemwide testing program of reading and writing skills at the conclusion of the first two years of college, while the other provides for a program of required developmental or special studies for entering students who fail to score above a combined score of 650 on the SAT. Each of these programs is an effort to deal with what is seen as a pervasive problem in higher education -- the inability of numerous students to meet minimal standards of reading and writing competency.

A Test for Rising Juniors

The policy decision to require an examination of reading and writing skills was made by the Georgia Board of Regents in 1969. The policy pertains to all students who are enrolled in degree programs within the Georgia system and specifies that passing the test is a requirement for graduation. The stated purpose of the testing requirement is to assure other institutions within the

system that students graduating from each unit "possess the basic competence of academic literacy, that is, certain minimum skills of reading and writing."

More specifically, the objectives of the testing requirement are: (1) to provide systemwide information on student competence in reading and writing, and (2) to provide a uniform means of identifying students who fail to attain minimum levels of competence. Success in passing the test is not a requirement for transfer within the University System and students whose native language is not English may be exempted. Each unit of the University System is responsible for implementing the Regents' policy and may develop special procedures for "extraordinary situations". Such procedures must be approved, however, and must include formal examination before certifying competency.

Since its implementation, the testing requirement has resulted in a failure rate of approximately one out of four students taking the test. As would be expected, there is considerable variation within the colleges and universities -- the passing rate being as high as 85 percent in some colleges and as low as 15 percent in one of the traditionally black institutions. Students taking the test a second time have a passing rate that exceeds 54 percent.

The reactions to a systemwide testing requirement have been predictable. The fairness of the test for minority groups has been severely questioned, and colleges attracting poorly prepared high school seniors as freshmen have thought themselves unduly penalized

by the test. Several doctoral dissertations dealing with the test indicate that it is basically what it was constructed to be -- a general test of reading and writing skills that have been presumed to be minimal competencies for college students.

The provision in the Regents' policy for retaking the test upon failure includes the requirement that each institution "provide an appropriate program of remediation" for students who may wish to participate in the program prior to retaking the test. The separate units of the system, at their discretion, may require deficient students to participate in the program.

A Program of Special Studies

Following the establishment of an examination of reading and writing skills at the junior level, the Regents of the University System of Georgia have required all units to establish a program of special studies for "academically deficient applicants". Tentative identification of poorly prepared students is made by a combined score of 650 on the SAT and followed by use of the Comparative Guidance and Placement Program Tests (CGP) to determine more specifically if the applicant should be placed in developmental courses prior to enrolling in regular college-level work.

Students placed in such developmental courses are required to pursue work in language arts, reading, or mathematics until they exhibit "predetermined levels of satisfactory performance". Those who fail to achieve such levels within one year are expected to

withdraw from college. Procedures for such special studies programs are required by the Regents' policy to be uniform throughout the system.

Two points in the Regents' policies for special studies require clarification. The policy is explicit in rejecting a score of 650 on the SAT as a standard for admission. Each institution is permitted its own admission practices and may set higher scores if so desired. The minimum requirement of 650 on the SAT means that such applicants will not be admitted to regular standing but will take other tests (the CGP tests) to determine placement in special studies or regular coursework. The second point is that students may leave the program of special studies at any time they are able to demonstrate their competence on systemwide tests.

The impact of the Regents' program of special studies is yet to be fully seen. Initial expectations were that the program would involve approximately 13.4 percent of the freshmen entering the University System.

PROGRAMS FOR DEVELOPMENTAL STUDIES

Two of the many questions that might be asked concerning the effectiveness of compensatory, remedial, or developmental education for minority groups can be phrased in harsh but simplistic terms:

1. Given a pluralistic society that prides itself on the diversity of its educational efforts, can minimum standards of competency be defined for the various levels of educational achievement that obviously exist?

2. Given the poor preparation that disadvantaged students have had for 12 years of formal schooling, can colleges and universities realistically expect to correct or alleviate basic academic deficiencies in short-term programs of three to twelve months?

The answers given to these questions are seldom satisfactory. There is a widespread reluctance to deal seriously and systematically with the first question because it smacks of authoritarianism and implies a denial of pluralism and diversity. Answers to the second question have a way of ignoring the empirical facts or experimental evidence that others may try to introduce. There is both a fatalism and an idealism that says simply, "We don't know until we have tried."

Basic Academic Competencies

Mulka and Sheerin (1975) have recommended that a concerted effort be made to establish nationwide standards for basic developmental skills in oral and written communication, reading, and mathematics. They recommend that the U.S. Office of Education launch a developmental skills program that would involve a random sample of elementary and secondary schools and establish competency levels for grades one through twelve. Concurrent with this effort would be an attempt to:

1. develop diagnostic materials for the identification of student needs in the three specific skill areas.
2. design a competency-based program to meet the identified needs.

3. develop specific measurable objectives for acquiring academic skills, study habits, and increasing motivation.

Implementation of such a project would require the cooperation of the federal government, state government, elementary and secondary schools, and colleges and universities. The approach would necessarily require the revision of present classes that have "traditionally -- and unsuccessfully" tried to teach such developmental skills. To Mulka and Sheerin, the choice is between continuing to meet a national problem "with disparate and uncoordinated efforts" and engaging that problem with a response "integrated into the structure and fabric of the educational system".

As ambitious as Mulka and Sheerin's proposals are, they are nonetheless in keeping with efforts of: (1) the Educational Testing Service to identify the reading skills that adults must have to function in the world around them, (2) the National Assessment of Educational Progress project that has tried to determine how well students as a group achieve desirable goals, (3) accountability and the various programs of statewide assessment, and (4) the numerous efforts of others to establish behavioral objectives, measurable goals, and absolute standards in general.

Developmental Studies

The problems and difficulties of compensatory, remedial, or developmental education have not gone unnoticed. Much of this attention has resulted in a pessimist outlook that reacts much too

strongly to the optimism of the sixties. Massive federal programs such as Headstart, Upward Bound, Talent Search, and Title I of ESEA did not result in the equality of educational opportunity as much as proponents had hoped. There is reason to believe, however, that they did succeed in realizing their less ambitious objectives. Upward Bound, for example, did succeed in getting more disadvantaged students to attend college; the success of the program should not be judged solely by the grades earned while there.

Institutional Effort

Egerton's survey of programs for "high risk" students (1968) gives an encouraging overview of the efforts American colleges and universities were then beginning to make to accommodate students they had previously excluded. Some programs were openly experimental and may have folded as soon as outside funds were expended. A few were funded at a level that the colleges could not hope to sustain. Egerton's later inquiry into the programs of public universities (1969) gives a better indication of the kind of response public institutions were likely to make.

In 1968 Roueche wrote that remedial education was fast becoming the largest instructional effort of the two-year college. In 1973 a survey by Morrison and Ferrante found that approximately 40 percent of the public two-year colleges in the nation had some form of special program for disadvantaged students. Only one-fifth of the private colleges had a special program, but two-thirds of them did have at least one special course of some kind for disadvantaged

students. Morrison and Ferrante believed the development of "innovative pedagogical techniques and programs for the academically disadvantaged" to be a mark of distinction for two-year colleges.

The variety of programs devised by many colleges and universities in the period from 1968 through 1972 is remarkable. It is quite possible that no two programs were identical and that each had advantages -- and disadvantages -- that the others did not have. The diversity of programs suggests that institutions were willing to experiment in a manner that spoke well of their creeds and charters. For programs that were obviously remedial, however, the reaction was not long in coming. Many disadvantaged students regarded the work as a re-hash of earlier schooling and resented the delay such coursework required in their degree programs.

Major Criticisms

The most telling criticisms of remedial or compensatory programs, however, came from the results or outcomes. In many respects, these criticisms reflect the disillusionment that came with efforts to determine the effectiveness of compensatory or remedial programs. The failure to find convincing evidence of consistent, permanent results was not tempered with awareness that most efforts to change human behavior are suspect when those efforts are subjected to hard-nosed analysis and evaluation. Two of the criticisms may be summarized as follows:

1. The most disappointing outcome of remedial education has often been that the gains observed in special courses simply

do not hold up. Impressive gains in English grammar, arithmetic computation, and reading vocabulary and comprehension quickly decline when special courses are completed. This finding is true of many training efforts in which intensive instruction is coupled with special conditions and procedures. Participants are apparently "driven" by instructors and classmates to achieve at a level that is closer to their maximum performance, but when the stimulus of group training is removed, too many revert to former habits.

2. Success in remedial coursework does not readily transfer to coursework in the traditional academic disciplines. Reading courses making use of films, videotapes, pacing devices, programmed texts, and other special instructional materials, often fail to prepare students for the typical college textbook that must be read without assistance. Computational skills in remedial mathematics do not transfer to the analytical demands of advanced coursework. Nor does the elimination of specific deficiencies in English grammar appear to help the student greatly in written assignments. Return to the traditional classroom taught by the typical college instructor with traditional expectations for student performance apparently re-triggers the faulty attitudes, poor study habits, and basic deficiencies that the student has acquired over a longer period of time.

Suspected Causes

The reasons for the poor showing of remedial or compensatory courses in higher education are numerous enough to satisfy individual preferences for an answer. Gordon and Wilkerson (1966) point out that most remedial programs have been concerned with structural arrangements only. Different schedules, procedures, and instructional materials are employed, but there is no basic alteration of the teaching-learning process. Too frequently, the students must bear the burden of proof that their own efforts were sufficient for the elimination of their educational difficulties.

Other causes may be identified as:

1. The lack of trained personnel -- i.e. professional staff who have been trained to diagnose student learning difficulties and plan specific remedial steps for the correction of errors, weaknesses, and deficiencies.
2. A lack of clear-cut purposes -- too often remedial courses are taught as a general re-cycling of what the student has not learned in other reading, math, and grammar courses. Teachers who hope to teach in an accelerated, abbreviated course of 10-12 weeks what the students have not learned in 12 years, must be commended for their optimism, if not their dedication.
3. An excessive dependence on technological devices and procedures -- as used by many instructors, the products of educational technology have been oversold. "Reading machines" are perhaps the best example of an early

technological application to a learning problem, and despite numerous years of experience for people who know better, "speed reading" courses are still being packaged and sold at lucrative prices.

4. Program encapsulation -- this reason implies that what is taught in too many remedial courses is not related to what follows those courses. Too frequently the courses are a function of the instructor's personality and the individual circumstances of the students. Expected benefits thus do not follow because the course is teacher-specific and has not been taught for applicational transfer to other areas of study. Student motives and incentives are still poorly understood and difficult to manipulate for educational purposes. Enthusiastic, energetic teachers in remedial courses are too often replaced by the "other kind" when the students enroll for other coursework.

The inadequacies of remedial, compensatory, or developmental education need not be belabored. They should be viewed, however, within a framework that will include: (1) Frost and Rowland's comment (1971) that compensatory education is the acid test of American education and may well be the criterion against which American education is historically judged, and (2) Gordon and Wilkerson's earlier observation (1966) that we are probably failing in compensatory education because we have not yet found the right answers or solutions to the problems that are involved.

The Imitation of Success

If remedial or compensatory courses in higher education are criticized for re-inventing the wheel, they must also be commended for the effort they have made. The response of many colleges and universities over the past decade has been both generous and conscientious. Some have made a sound beginning that does have potential success. Organizational structures, instructional methods and materials, and professional staff roles have been developed that are worthy of imitation. It is these, perhaps, that should be emphasized in the future. Despite the lip-service given innovation in recent years, many colleges and universities would do well to identify other institutions and programs that can serve as viable models for their own conduct. A serious argument could be mustered that the greatest weakness of compensatory education has been the failure to identify and publicize those programs that have been reasonably successful in achieving realistic goals and objectives. Here, as elsewhere in higher education, the design-development-diffusion-adoption phases of planned change have been poorly understood.

Even though concerned with education at the graduate level, Hamilton's survey of programs for minority students (1973) indicates what some of the components of success might be. Identifying 25 institutions with "reasonably clear and coherent programs for minority/disadvantaged graduate students", Hamilton listed their effective characteristics as follows:

1. The articulation of policies that are explicit as to whether minority groups will be assured equal treatment and non-discrimination or accorded compensatory or affirmative action.

2. The active coordination of recruitment, admissions, and student services at the college or institutional level.
3. A cooperative effort in recruitment between the graduate school and the academic department.
4. An accepted definition of the type of student sought in recruitment and the geographic region on which to focus efforts.
5. Special arrangements for the admission of students with marginal credentials.
6. Coordinated student services in those areas where minority students need particular attention. These include:

    a. assistance in locating adequate housing
    b. adequate financial support
    c. special help on academic deficiencies
    d. open opportunities for assistantships
    e. sensitivity on the part of the student employment office
    f. the availability of ethnic or cultural heritage courses
    g. an ethnic or cultural center
    h. an effective means of communication with authorities

7. Provision for continuous evaluation of the efforts being made.

The gist of Hamilton's "effective characteristics" may well be an institutional commitment that is understood by faculty and staff, and a willingness to modify internal arrangements for the purpose of meeting that commitment.

SUMMARY AND IMPLICATIONS

As the title of a recent publication from NCHEMS (1974) suggests, the problems and issues of higher education are visible; it is the answers that are unseen. For the access, placement, retention, and graduation of minority groups in higher education, the visibility of the problems may be their major advantage. If the answers cannot be seen clearly at the moment, it is not because the problems and issues of access are still obscured. The problems and issues of minority participation are at least in the open -- and therein lies hope for their eventual resolution.

Access and Placement

Despite the unsatisfactory state of statistical data dealing with access in the mid-seventies, the critical dimensions of the overall situation are visible. Following the success of court action against segregation and the enactment of federal legislation that would enable access, minority groups did succeed in gaining better representation within institutions of higher education from the early sixties to 1970-1972. The tragic events of 1968 spurred the efforts of private institutions and state universities to recruit and admit minority groups. Many institutions recognized the inadvisability of admission standards that could not serve the needs of minority groups and modified their previous attempts to recruit and select only the academically talented or those with special or latent talents. Many openly acknowledged the advent of universal access and the need for special, intensified recruitment and placement for minority groups.

Whether the period from 1968 to 1970 was the highwater mark or not cannot now be said. It is significant that events in the early seventies did alter in various ways the participation and involvement of minority groups in higher education. Some institutions failed to sustain the initiative they had taken earlier, the attitude and activities of the federal government underwent change, and the American public became absorbed in other matters. The national news media no longer found campus events news-worthy, and the whole of higher education settled down to what might be charitably described as a bad case of the "blahs".

Rates of Participation

The absence of dependable, consistent data for the years following 1970-1972 is a reflection of the "benign neglect" that minority groups have undoubtedly experienced. Regardless of how rates of participation may be computed, however, and regardless of the need for more accurate data, the representation of minority groups in higher education has changed significantly. For Black Americans, the rates of participation may be interpreted as more than half-way, but not full. Such an interpretation suggests that using the national proportions of blacks in the total U.S. population, the college-age population (18-24 years, or 18-34 years), or the college-eligible population of high school graduates, rates of participation may be computed that would suggest substantial progress. Although the rate of participation in higher education is not 11-12 percent (as it is in the nation's total population), it is now greater than 5-6 percent, if any kind of trend data is to be believed.

If there are those who would accept half a goal as better than none, there are others who are not pleased with the overall progress being made. It is this fact that makes the full acceptance of more accurate statistical data dubious. Rates of participation, based on national statistics, are not likely to be major determinants of either public policy or public opinion. Not only do such statistical indices permit a variety of arguments pro-and-con for the national picture, but they obscure regional, state, and metropolitan statistics that may be more relevant to educational planning and programming. Suffice it to say that even if a full rate of participation were evident for the nation, there would remain regions, areas, and localities of imbalance. National statistics could be both irrelevant and defeating at a local level.

Yet, the need for reliable, accurate information is acute, and a recommendation for systematic, periodic, coherent data on the access and placement of minority groups in higher education is much in order. Such data should involve categories that are realistically defined for educational purposes and relatively immune to the political whims of the moment. They should be collected in a systematic manner without permitting other informational needs to distort their relevance, and they should be available for intensive policy-related research by qualified agencies. In this manner, information may well be gained that would assist the formulation of public policy.

A Focus on Placement

Other data needs include better information on the flow of minority groups within the various institutions and academic programs of higher education. Although limited, current statistics indicate concentrations within institutions and academic programs that may, in the long-run, prove disadvantageous. Employment opportunities in the two fields attracting large numbers of black students (education and social sciences) are not expanding as rapidly as previously, and an active concern with distribution within programs would be desirable. The increased interest and opportunity in business and health services are indicative of steps that might be taken to encourage participation in a broader diversity of academic programs. Science, engineering, and other technical or highly specialized programs do not, at the present time, include large numbers of minority groups.

Efforts of the traditionally black institutions to provide more comprehensive curricula are also indicative of steps that should be facilitated. The role of these institutions as opportunity colleges is not lessened by their efforts to provide more specialized and advanced programs of study. Cooperative efforts with other institutions have possibilities for the future that have not been exercised fully in respect to the past. Given the overall picture in higher education, the leveling-off of institutional growth, and the possibilities of more stable enrollment, several aspects of the situation can be interpreted as an opportunity to deal more constructively with the

problems of access and placement. Institutional growth has been a major preoccupation for the past 25 years. There is optimism in the thought that concerted efforts might now be given to the consolidation of gains and to the continued elaboration of academic programs that serve the needs of a pluralistic society.

Retention and Graduation

Better attention should be directed to the retention and graduation of all college students. There are ample hints that minority students drop out of college for much the same reasons that majority students do. Such students do not find college satisfying, quickly lose interest in their coursework, and easily find face-saving reasons for leaving. This possibility does not lessen the importance of adequate financial aid to students, but it does suggest that any effort to deal with financial support without accompanying attention to academic motivation will be less effective. It is not enough that students have financial support in attending college; they must have other incentives, and they must find college sufficiently rewarding if they are to remain there.

It is especially unfortunate that too little attention has been given to graduation rates for minority groups. The apparently high rates of participation for oriental students suggest that sociocultural forces are at work that should be better understood. Not the least of these forces is the career preparation that a college education is able to provide. The career placement of minority groups after college graduation has not been adequately studied in the past because of obvious obstacles. Systematic, longitudinal studies that view the movement of students through college to meaningful careers are greatly needed.

Barriers and Crucial Issues

The barriers to minority participation and involvement in higher education are not only visible, but may be, for the first time, genuinely vulnerable. There is convergence of rationales for financial support and something of a sustaining ideology that would imply a basis for governmental action. The foundations for such support have been laid and are matters of law insofar as the Educational Amendments of 1972 are concerned. The difference between authorization and allocation need not be the difference between principle and practice.

Other barriers to minority participation may be more formidable. There is little evidence that the poor preparation of a disadvantaged student can be alleviated by short-term, ad hoc efforts at the college level. In some respects, the abuses of standardized tests in education and employment has served minority groups well. They have dramatized the inequality of educational opportunity in a specific, quantifiable manner than is not matched by other methods and approaches. In their own way, standardized tests have underscored the inadequacies of public education. An early recommendation by the Carnegie Commission (1970) may be recalled:

> The Commission recommends that the first priority in the nation's commitment to equal educational opportunity be increased effectiveness of preelementary, elementary, and secondary education programs.

Reactivation of the recommendation need not fix blame or guilt, nor should it give an excuse to higher education. It is a statement that is as applicable in 1975 as it was in 1970, but all the more consequential because the statement was not heard the first time.

The challenge to American education is to work through its confusions of purpose and mission for a realistic grasp on the specific role it must play in a pluralistic society, strongly committed to full participation and involvement on the part of all its citizens. To do so, educational leadership must re-establish its own credibility with the public it presumably serves. Higher education must re-assert its own leadership within the larger framework of school and society. How well educational leadership can meet this challenge is not visible.

REFERENCES

Astin, H., Astin, A., Bisconti, A., & Frankel, H. Higher Education and the Disadvantaged Student. Washington, D. C.: Human Services Press, 1972.

Barriers to Higher Education. New York: College Entrance Examination Board, 1971.

Carnegie Commission on Higher Education. From Isolation to Mainstream: Problems of the Colleges Founded for Negroes. New York: McGraw-Hill, 1971.

Clasby, M., Webster, M., & White, N. Laws, Tests and Schooling. Syracuse: Educational Policy Research Center, Syracuse University Research Corporation, 1973.

Cleary, T. A., Humphreys, L. G., Kendrick, S. A., & Wesman, A. Educational Uses of Tests with Disadvantaged Students. American Psychologist, 1975, 30, 15-41.

Coleman, J. S., et al. Equality of Educational Opportunity. Washington, D. C.: U. S. Government Printing Office, 1966.

College Entrance Examination Board Panel on Financing Low-Income and Minority Students in Higher Education. Toward Equal Opportunity for Higher Education. New York: College Entrance Examination Board, 1973.

Commission on Higher Educational Opportunity in the South. The Negro and Higher Education in the South. Atlanta: SREB, 1967.

Crossland, F. E. Minority Access to College. New York: Schocken Books, 1971.

Davis, J. S. Student Financial Aid Needs and Resources in the SREB States: A Comparative Analysis. Atlanta: SREB, 1974.

A Digest of Reports of the Carnegie Commission on Higher Education. New York: McGraw-Hill, 1974.

Doermann, H. Crosscurrents in College Admissions. New York: Teachers College Press, 1968.

Ebel, R. L. State Testing Programs: Status, Problems, and Prospects. TM Report 40. Princeton: ERIC Clearinghouse on Tests, Measurement, & Evaluation, 1974.

Educational Testing Service. State Educational Assessment Programs. Princeton, N. J.: Educational Testing Service, 1971.

Egerton, J. Higher Education for "High Risk" Students. Atlanta: Southern Education Foundation, 1968.

Egerton, J. State Universities and Black Americans: An Inquiry into Desegregation and Equity for Negroes in 100 Public Universities. Atlanta: Southern Education Foundation, 1969.

Ending Discrimination in Higher Education: A Report from Ten States. Atlanta: Southern Education Foundation, 1974.

Fact Book on Higher Education in the South 1973 and 1974. Atlanta: SREB, 1974.

Ferrin, R. I. A Decade of Change in Free-Access Higher Education. New York: College Entrance Examination Board, 1971.

Fincher, C. Is the SAT Worth its Salt? An Evaluation of the Use of the Scholastic Aptitude Test in the University System of Georgia Over a Thirteen Year Period. Review of Educational Research, 1974, 44, 293-305.

Findley, W. G., & Bryan, M. M. Ability Grouping: 1970. Athens, Ga.: Center for Educational Improvement, University of Georgia, 1971.

Flaugher, R. L. Bias in Testing: A Review and Discussion. TM Report 36. Princeton: ERIC Clearinghouse on Tests, Measurement, & Evaluation, 1974.

Folger, J. K., Astin, H. S., & Bayer, A. E. Human Resources and Higher Education. New York: Russell Sage Foundation, 1970.

Frost, J. L., & Rowland, C. T. Compensatory Education: The Acid Test of American Education. Dubuque: Wm. C. Brown Co., 1971.

Gordon, E. W., & Wilkerson, D. A. Compensatory Education for the Disadvantaged. Programs and Practices: Preschool Through College. New York: CEEB, 1966.

Green, D. R. Racial and Ethnic Bias in Test Construction. Monterey, Calif.: CTB/McGraw-Hill, 1972.

Green, D. R. Racial and Ethnic Bias in Achievement Tests and What to Do About It. Monterey, Calif.: CTB/McGraw-Hill, 1973.

Hamilton, I. B. Graduate School Programs for Minority/Disadvantaged Students. Princeton, N. J.: Educational Testing Service, 1973.

Higher Education Opportunities for Southern Negroes 1969. Atlanta: Southern Education Foundation, 1969.

Hodgkinson, H. L. How Much Change for a Dollar? A Look at Title III. ERIC/Higher Education Research Report No. 3. Washington, D. C.: American Association for Higher Education, 1974.

Illich, I. Deschooling Society. New York: Harper & Row, 1971.

Institute for Higher Educational Opportunity. The College and Cultural Diversity: The Black Student on Campus. Atlanta: Southern Regional Education Board, 1971.

Institute for Higher Educational Opportunity. New Challenges to the Junior Colleges: Their Role in Expanding Opportunity for Negroes. Atlanta: Southern Regional Education Board, 1970.

Institute for Higher Educational Opportunity. The Black Community and the Community College: Action Programs for Expanding Opportunity. Atlanta: Southern Regional Education Board, 1970.

Institute for Higher Educational Opportunity. Special Financial Needs of Traditionally Negro Colleges: A Task Force Report. Atlanta: SREB, n. d.

Jencks, C., et al. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1973.

Jordan, V. E., Jr. Blacks and Higher Education -- Some Reflections. Daedalus, 1975, 104, (1), 160-165.

Juster, F. T. (Ed.). Education, Income, and Human Behavior. New York: McGraw-Hill, 1975.

Kendrick, S. A., & Thomas, C. L. Transition from School to College. Review of Educational Research, 1970, 40, 151-179.

Mann, P. B. Higher Education in Black and White. Washington, D. C.: American Association for Higher Education, 1972.

McDill, E. L., McDill, M. S., & Sprehe, J. T. Strategies for Success in Compensatory Education: An Appraisal of Evaluation Research. Baltimore: John Hopkins Press, 1969.

McGrath, E. J. The Predominantly Negro Colleges and Universities in Transition. New York: Columbia University, Teachers College, Bureau of Publications, 1965.

Moore, W., Jr. Against the Odds: The High Risk Student in the Community College. San Francisco: Jossey-Bass, 1970.

Morrison, J. L., & Ferrante, R. Compensatory Education in Two-Year Colleges. University Park: Center for the Study of Higher Education, Pennsylvania State University, 1973.

Mulka, M. J., & Sheerin, E. J. An Evaluation of Policy Related Research in Postsecondary Education for the Disadvantaged (Vol. I - Executive Summary). Washington, D. C.: National Science Foundation, 1975.

Mulka, M. J., & Sheerin, E. J. An Evaluation of Policy Related Research in Postsecondary Education for the Disadvantaged (Vol. 2 - Technical Report). Washington D. C.: National Science Foundation, 1975.

Pifer, A. The Higher Education of Blacks in the United States. New York: Carnegie Corporation of New York, 1973.

Postsecondary Education Issues: Visible Questions; Invisible Answers. Boulder: National Center for Educational Management Systems, 1974.

Public Negro Colleges: A Fact Book. Atlanta: Office for the Advancement of Public Negro Colleges, 1971.

Roueche, J. E., & Kirk, R. W. Catching Up: Remedial Education. San Francisco: Jossey-Bass, 1973.

Roueche, J. E. Salvage, Redirection, or Custody? Washington, D. C.: American Association of Junior Colleges, ERIC Monograph Series, 1968.

Samuda, R. J. Psychological Testing of American Minorities: Issues and Consequences. New York: Dodd, Mead and Co., 1975.

Small Change: A Report on Federal Support for Black Colleges 1972. Atlanta: Southern Education Foundation, 1972.

Spurlock, L. Minorities in White Colleges: A Survey of Opinion from Students, Faculty, and Administration. Washington: American Council on Education, 1974.

Solmon, L. C., & Taubman (Ed.). Does College Matter? New York: Academic Press, 1973.

The Turning Point: The College Education Achievement Project, 1967-1972. Atlanta: Southern Association of Colleges and Schools, 1973.

Tyler, R. W., & Wolf, R. M. (Eds.). Crucial Issues in Testing. Berkeley: McCutchan Publishing Co., 1974.

Weber, G. Uses and Abuses of Standardized Testing in the Schools. Washington, D. C.: Council for Basic Education, 1974.

Willingham, W. W. College Placement and Exemption. New York: College Entrance Examination Board, 1974.

ADDENDA

Carnegie Commission on Higher Education. A Chance to Learn: An Action Agenda for Equal Opportunity in Higher Education. New York: McGraw-Hill, 1970.

State Educational Assessment Programs: 1973 Revision. Princeton: ERIC Clearinghouse on Tests, Measurement and Evaluation, 1973.

State Testing Programs: 1973 Revision. Princeton: ERIC Clearinghouse on Tests, Measurement and Evaluation, 1973.

Dyer, H. S. & Rosenthal, E. An overview of the survey findings, in State Educational Assessment Programs. Princeton, N. J.: Educational Testing Service, 1971.

Green, T. F. Introduction, in Clasby, M., Webster, M. M., & White, N. R. Laws, Tests and Schooling: Changing Contexts for Educational Decision-Making. Syracuse: Educational Policy Research Center, 1973.